6JB6A

Beam Power Tube

NOVAR TYPE
SEPARATE GRID-No.3 BASE-PIN TERMINAL FOR "SNIVETS" CONTROL[a]

For Horizontal-Deflection-Amplifier Service in Black-and-White TV Receivers

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	1.200	amp
Peak heater-cathode voltage:		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200[b] max.	volts

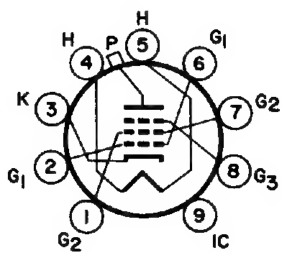
Direct Interelectrode Capacitances (Approx.):[c]

Grid No.1 to plate	0.2	pf
Input: G1 to (K+G3,G2,H)	15.0	pf
Output: P to (K+G3,G2,H)	6.0	pf

Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	3.505"
Seated Length	2.875" ± 3.125"
Diameter	1.438" ± 1.562"
Dimensional Outline	See *General Section*
Bulb	T12
Cap	Skirted Miniature (JEDEC No.C1-2 or C1-3)
Base	Large-Button Novar 9-Pin with Exhaust Tip (JEDEC No.E9-88)
Basing Designation for BOTTOM VIEW	9QL

Pin 1 - Grid No.2
Pin 2 - Grid No.1
Pin 3 - Cathode
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Grid No.1
Pin 7 - Grid No.2
Pin 8 - Grid No.3
Pin 9 - Do Not Use
Cap - Plate



Characteristics, Class A_1 Amplifier:

	Triode Connection	*Pentode Connection*		
Plate Voltage	150	60	250	volts
Grid No.3	–	*Connected to cathode at socket*		
	–	–		
Grid-No.2 Voltage	150	150	150	volts
Grid-No.1 Voltage	-22.5	0	-22.5	volts
Amplification Factor	4.4	–	–	
Plate Resistance (Approx.)	–	–	15000	ohms

	Triode Connection	Pentode Connection		
Transconductance.	–	–	7100	μmhos
Plate Current	–	390[d]	70	ma
Grid-No.2 Current	–	32[d]	2.1	ma
Grid-No.1 Voltage (Approx.) for plate current = 1 ma. . .	–	–	-42	volts

HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, *Design-Maximum Values:*

For operation in a 525-line, 30-frame system[e]

DC Plate-Supply Voltage	770 max.	volts
Peak Positive-Pulse Plate Voltage[f]. . . .	6500 max.	volts
Peak Negative-Pulse Plate Voltage	1500 max.	volts
DC Grid-No.3 Voltage[a]	70 max.	volts
DC Grid-No.2 (Screen-Grid) Voltage. . . .	220 max.	volts
DC Grid-No.1 (Control-Grid) Voltage . . .	-55 max.	volts
Peak Negative-Pulse Grid-No.1 Voltage . .	330 max.	volts
Cathode Current:		
Peak.	550 max.	ma
Average	175 max.	ma
Grid-No.2 Input	3.5 max.	watts
Plate Dissipation[g].	17.5 max.	watts
Bulb Temperature (At hottest point on bulb surface). . .	240 max.	°C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance: For grid-resistor bias operation[f] . . .	1 max.	megohm

[a] A positive voltage may be applied to grid No.3 to reduce interference from "snivets" which may occur in television receivers. A typical value for this voltage is 30 volts.

[b] The dc component must not exceed 100 volts.

[c] Without external shield.

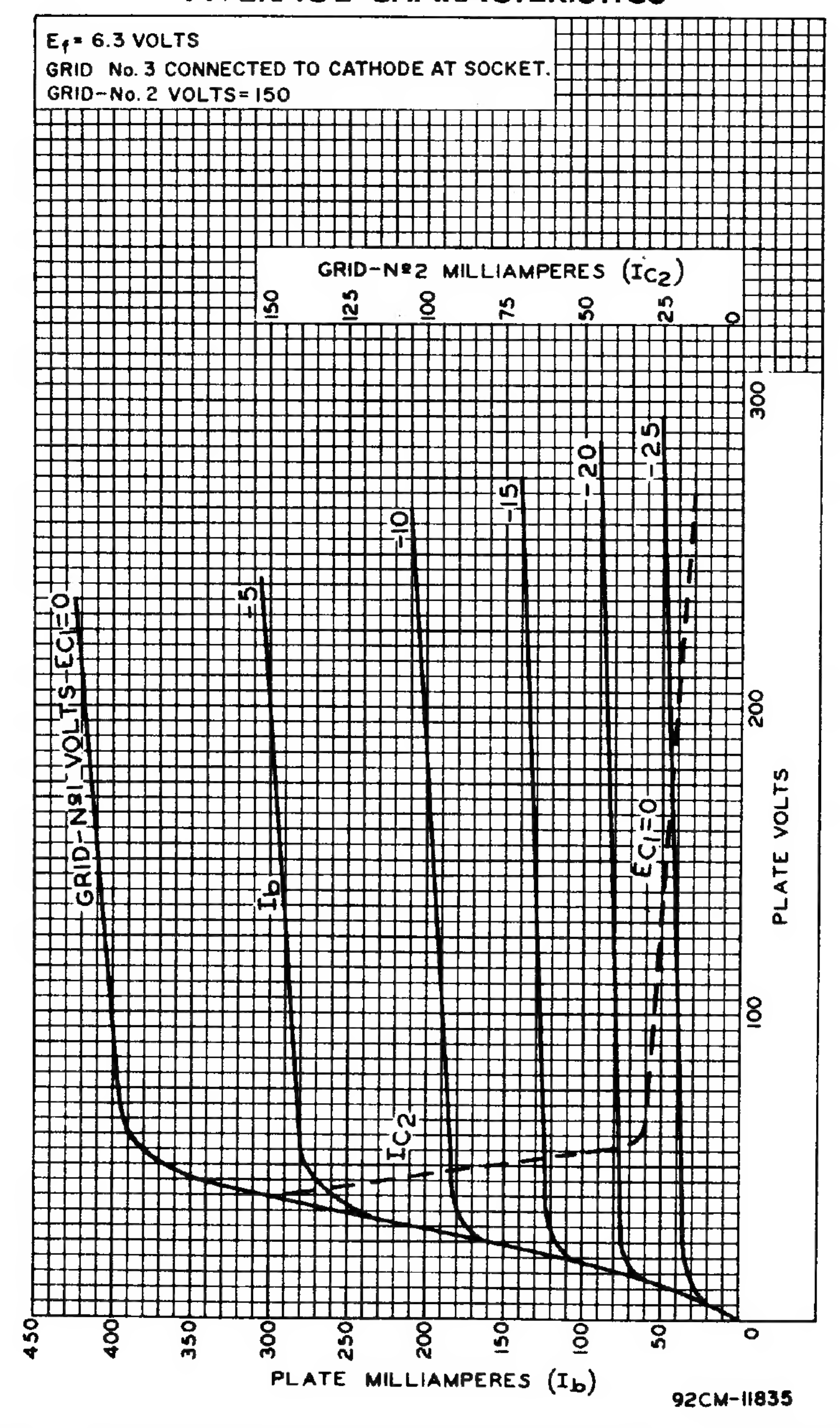
[d] This value can be measured by a method involving a recurrent wave form such that the plate dissipation, grid-No.2 input, and cathode current will be kept within ratings in order to prevent damage to the tube.

[e] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

[f] This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525 line, 30-frame system, 15 per cent of one horizontal scanningcycle is 10 microseconds.

[g] It is essential that the plate dissipation be limited in the event of loss of grid signal. For this purpose, some protective means such as a cathode resistor of suitable value should be employed.

AVERAGE CHARACTERISTICS



92CM-11835